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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,987	08/17/2000	Yang-Woon Na	40055/DBP/Y35	6207

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EXAMINER

BERCK, KENNETH A

ART UNIT PAPER NUMBER

2879

DATE MAILED: 08/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Applicati n No.

09/641,987

Applicant(s)

NA, YANG-WOON

Examiner

Ken A Berck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8 and 18 is/are rejected.
- 7) ☒ Claim(s) 9-17 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al. (US 6249264) in view of Jaskie et al. (US 5731660).

Regarding claim 1, Sano discloses (fig 33) a flat panel display with a faceplate (11) a backplate (21) combined with the faceplate to form a vacuum tight cell, an image production unit (28), a plurality of spacers (50) mounted within the cell, the spacers being held between the faceplate and the backplate, wherein each of the plurality of spacers includes a plurality of exhaust grooves (HL) to enable fluid gas flow within the cell, a pair of alignment members (29) connected to the spacers such that the spacers and alignment members form an integral spacer body, to align the spacers at the non-display area in a constant manner.

Sano fails to clearly point out a pair of subsidiary alignment members.

Jaskie discloses a pair of subsidiary alignment members (32) in order to form a central opening and define a plurality of separate compartments.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the display of Sano with the pair of subsidiary alignment

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members (32) in order to form a central opening and define a plurality of separate compartments, as taught by Jaskie.

Regarding claim 2, Sano discloses (fig 33) each alignment member is connected to one-sided end portions of the spacers.

Regarding claim 3, Sano discloses (fig 33) a longitudinal axis of each spacer is positioned substantially parallel to a side of the cell.

Regarding claim 6, Sano discloses (fig 33) the exhaust grooves of each spacer are positioned along a length of the spacer while being spaced apart from each other by a predetermined distance.

Regarding claim 7, Sano discloses (fig 9) each spacer is provided with a plurality of image distortion prevention grooves (FCS).

Regarding claim 8, Sano discloses (fig 9) the image distortion prevention grooves of each spacer are positioned along a length of the spacer while being spaced apart from each other by a predetermined distance.

Regarding claim 18, Sano discloses (fig 33) a flat panel display with a faceplate (11) a backplate (21) combined with the faceplate to form a vacuum tight cell, an image production unit (28), a plurality of spacers (50) mounted within the cell, the spacers being held between the faceplate and the backplate, wherein each of the plurality of spacers includes a plurality of exhaust grooves (HL) to enable fluid gas flow within the cell, a pair of alignment members (29) connected to the spacers such that the spacers and alignment members form an integral spacer body, to align the spacers at the non-display area in a constant manner.

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Sano fails to clearly point out a pair of subsidiary alignment members.

Jaskie discloses a pair of subsidiary alignment members (32) in order to form a central opening and define a plurality of separate compartments.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the display of Sano with the pair of subsidiary alignment members (32) in order to form a central opening and define a plurality of separate compartments, as taught by Jaskie.

Allowable Subject Matter

Claims 9-17 and 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 9, the prior art of record neither shows nor suggests a flat panel display with exhaust grooves positioned adjacent to the backplate and the image distortion grooves are positioned adjacent to the faceplate, and the grooves are in one to one correspondence with the exhaust grooves with respect to a longitudinal axis of the spacer, in combination with the base claim.

Regarding claim 10, the prior art of record neither shows nor suggests a flat panel display with each alignment member formed with a plurality of exhaust grooves, in combination with a base claim.

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Regarding claim 11-12, the reasons stated above and dependence on a base claim.

Regarding claim 13, the prior art of record neither shows nor suggests a flat panel display with each alignment member formed with a plurality of exhaust grooves, in combination with a base claim.

Regarding claim 14-15, the reasons stated above and dependence on a base claim.

Regarding claim 16, the prior art of record neither shows nor suggests a flat panel display with an insulating layer formed with a plurality of breakthrough holes formed over the cathode electrode, a plurality of emitters contacting the cathode electrodes, each emitter being disposed within one of the breakthrough holes, a plurality of gate electrodes formed on the insulating layer, in combination with a base claim.

Regarding claim 17, the prior art of record neither shows nor suggests a flat panel display with the vacuum degree of the cell is kept to be substantially 10^{-7} torr, in combination with the base claim.

Regarding claim 20, the prior art of record neither shows nor suggests a flat panel display with a plurality of exhaust grooves along the spacer and a plurality of image distortion grooves along the spacer and the grooves are in one to one correspondence with the exhaust grooves with respect to a longitudinal axis of the spacer, in combination with the base claim.


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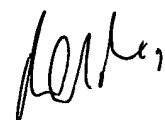
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken A Berck whose telephone number is (703)305-7984. The examiner can normally be reached on Mon-Fri 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

kab 
July 24, 2003


NIMESHKUMAR D. PATEL
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